

Remarks/Arguments

The foregoing amendments and these remarks are in response to the non-final Office Action, dated March 2, 2010. The Commissioner is authorized to charge any fees which may be required in connection with this response to Deposit Account No. 14-1437.

At the time of the Office Action, claims 1-10, 13-20, 23-24 and 26 were pending in the application. Claims 1-10, 14, 20, 23-24 and 26 were withdrawn. Claims 13 and 15-19 were rejected. Specifically, claim 13 was rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,655,735 to Sakakibara ("Sakakibara"). Claims 15-19 were rejected under 35 U.S.C. 102(b) as being anticipated by JP Patent Publication 10213185 to Kato ("Kato"). The rejection of each independent claim will be addressed in turn below.

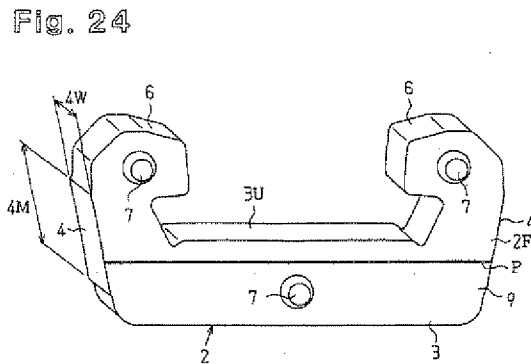
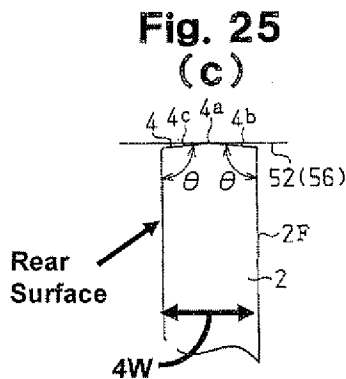
Claim Rejections

Claim 13

As noted above, claim 13 was rejected under 35 U.S.C. § 102(b) as being anticipated by Sakakibara. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 224 USPQ 409, 411 (Fed. Cir. 1984) ("exclusion of a claimed element from a prior art reference is enough to negate anticipation by that reference").

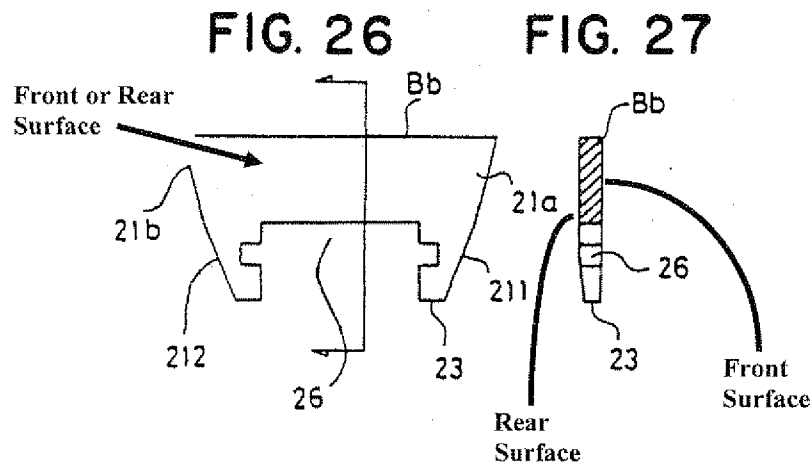
Applicant respectfully disagrees with the rejection. Nonetheless, in an effort to advance the prosecution, claim 13 has been amended to expressly recite front and rear surfaces of the push block and to include recitations that identify the relationship of the front and rear surfaces of the push block relative to the side contact surface as well as the direction of the ridge line. In light of this amendment and the comments below, reconsideration and withdrawal of the rejection is respectfully requested. Applicant reserves the right to pursue the subject matter of claim 13, as originally presented or previously presented, in one or more continuation patent applications.

Claim 13, as amended, is directed to the embodiment shown in cross-section in Fig. 25(c), as shown below (with additional reference lines and labels added by Applicants for purposes of discussion). For reference purposes, FIG. 24 is also presented below:



With reference to the above figures, claim 13 has been amended to recite features that Applicant believes were already clear: a front surface (2F), a rear surface (as indicated by “rear surface” in FIG. 25(c) above), a side contact surface (4) extending between the front and rear contact surfaces, the side contact surface having a lengthwise direction (extending into and out of the page in FIG. 25(c) and in the direction 4M in FIG. 24), the ridge line (4a) extending substantially into the lengthwise direction (FIG. 25(c)). The widthwise direction extends left to right on the page in FIG. 25(c) and in the direction 4W in FIG. 24. Support for these amendments can be found at least at FIGS. 24 and 25(c). With this understanding in mind, Sakakibara will now be examined.

Referring to FIG. 26 of Sakakibara, the Office Action notes that SAKAKIBARA teaches “a side contact surface (21 a) (21 b) ... and a front half of the contact surface forms an obtuse angle with a front surface of the push block (Bb), and a rear half of the contact surface forms an obtuse angle with a rear surface of the push block, and a ridge line comprising a line formed by an intersection of said front half and said rear half, said ridge line functioning as an oil film breaking portion for breaking an oil film, which forms on the inner side surfaces of the annular V-grooves of the pulleys (Fig. 26), and extending along the entire length of the contact surface at a middle part of the contact surface in the widthwise direction.” See Office Action at pages 3-4. FIGS. 26-27 of Sakakibara are presented below, all of which are directed to a fourth embodiment of Sakakibara.



As can be readily confirmed from FIGS. 26-27 above, the side contact surfaces 21a, 21b (as noted by the Office Action) of the Sakakibara block do not have a ridge line, as recited in claim 13. In fact, the surfaces 21a, 21b appear to be planar. Thus, it cannot be said that Sakakibara discloses a ridge line. Additionally, no other drawing figure of Sakakibara shows a ridge line. Not only do the drawings fail to show a ridge line, as recited in claim 13, but the specification of Sakakibara makes no mention of a ridge line on the side contact surfaces of the push block. Indeed, Applicants note that the Office Action fails to point to any specific structure in Sakakibara that would be a ridge line.

Further, claim 13 recites that “a front half of the contact surface forms an obtuse angle with the front surface of the push block, a rear half of the contact surface forms an obtuse angle with the rear surface of the push block.” Such relationships cannot be found in the Sakakibara block. In Sakakibara, either the front surface or the rear surface of the push block is shown in FIG. 26, as shown by the mark-up above. In FIG. 27, the front and rear surfaces would be on opposite sides of the cross-sectional part, as indicated above. In addition, none of the other drawing figures of Sakakibara shows an obtuse angle between the side contact surface and the front and/or rear surfaces. Further, nowhere does the disclosure of Sakakibara indicate that any of such surfaces are at obtuse angles relative to each other. Indeed, the Office Action points to no specific support for its position in this regard. In light of the above, Sakakibara fails to disclose “a front half of the contact surface forms an obtuse angle with the front surface of the

push block, a rear half of the contact surface forms an obtuse angle with the rear surface of the push block.”

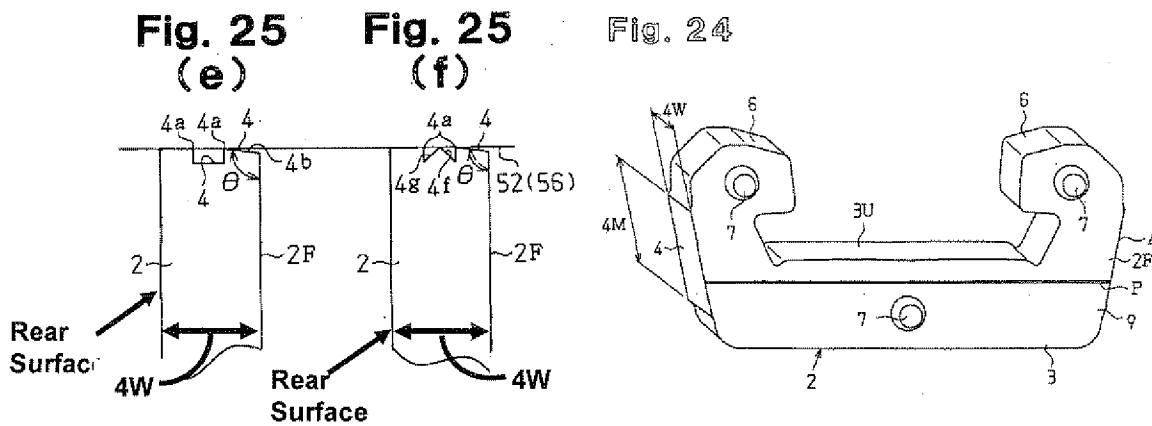
Thus, for at least the reasons set forth above, Sakakibara fails to disclose each recitation of claim 13, and, consequently, it cannot anticipate claim 13. Reconsideration and removal of the rejection is respectfully requested.

Claim 15

As noted above, claim 15 was rejected under 35 U.S.C. 102(b) as being anticipated by Kato. Again, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

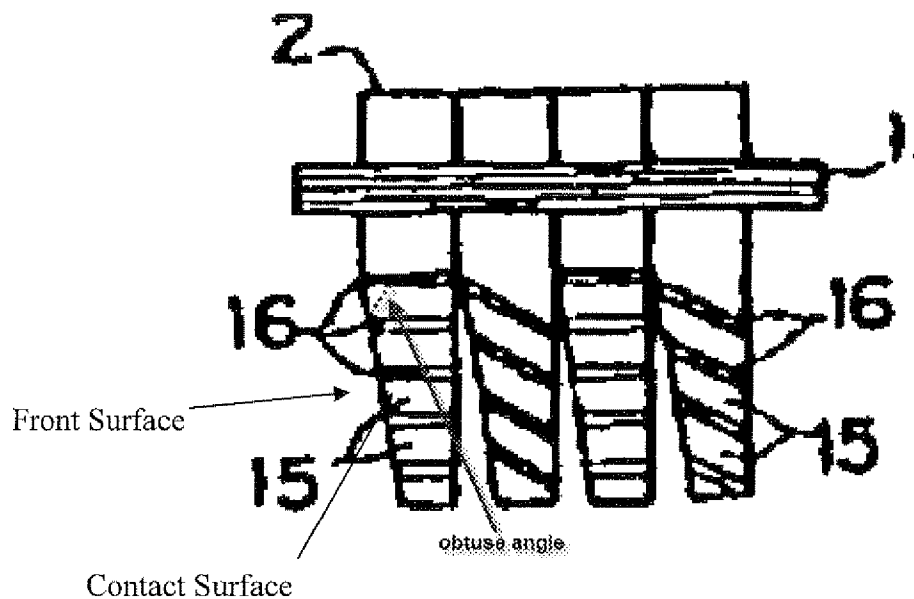
Applicant respectfully disagrees with the rejection. Nonetheless, in an effort to advance the prosecution, claim 15 has been amended to identify the relationship of the front and rear surfaces of the push block relative to the side contact surface and to identify the direction of the groove. In light of these amendments and the comments below, reconsideration and withdrawal of the rejection is respectfully requested. Applicant reserves the right to pursue the subject matter of claim 15, as originally presented or previously presented, in one or more continuation patent applications.

As recited in claim 15, the claimed push block includes a groove that extends along the entire length of the contact surface in the lengthwise direction and at the middle of the contact surface in the widthwise direction. The inner wall of the groove and the contact surface defines a ridge line that functions as the oil film breaking portion. In addition, a front portion (4b) of the contact surface forms an obtuse angle with the front surface (2F) of the push block. Examples of this embodiment are shown in cross-section in Figures 25(e) and 25(f) of the present application. The figures are presented below (with additional mark-ups for purposes of discussion):



For purposes of orientation, it should be noted that front surface 2F and contact surface 4 are shown in Figure 24 and Figures 25(e) and 25(f), above. In addition, the groove, which is shown in cross-section in Figures 25(e) and 25(f) extends along the lengthwise direction (4M in FIG. 24) of the contact surface and is located in the middle of the contact surface in the widthwise direction (4W in FIG. 24). With respect to FIGS. 25(e) and 25(f), the lengthwise direction is generally into and out of the page, and the widthwise direction is from left to right.

The Office Action asserts that Figure 7 of Kato discloses the claimed obtuse angle and the groove (see below).

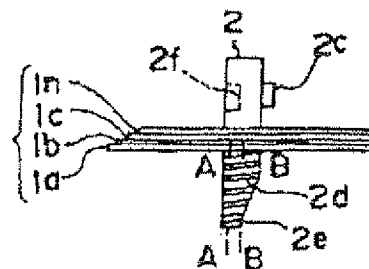


From Figure 7, it is clear that any grooves disclosed by Kato extend in the widthwise direction, not the lengthwise direction. Thus, it cannot be said that Kato discloses the recited orientation of the grooves in claim 15.

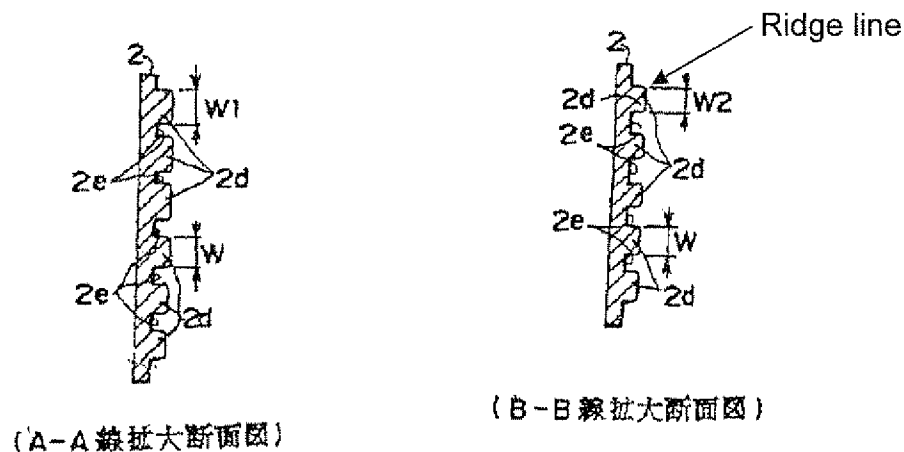
In addition, Figure 3 and 4 shed even more light on the geometry of the push blocks in Kato. In particular, Figure 3 shows an individual push block and Figure 4 shows cross-sectional views taken along cut lines A-A and B-B, which extend in the length-wise direction of the contact surfaces.

As shown in Figures 3 and 4, Kato discloses an alternating arrangement of projections 2d (i.e., the contact surface) and grooves 2e. The projections 2d and the grooves 2e extend along the widthwise or travel direction of the push block.

【圖 3】



【圖 4】

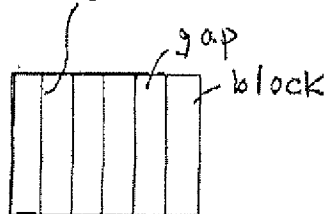


The Office Action asserts that groove 2e in Kato is a groove that extends along the entire length of the contact surface at the middle of the contact surface. However, Figures 3 and 4 of Kato demonstrate that the groove (2e) in Kato extends diagonally in the width direction and clearly, Kato does not disclose a ridge line that extends along the entire length of the contact surface because A-A and B-B of Figure 4 are cross sections taken along the length direction and 2e does not extend along the entire length of cut lines A-A or B-B. Items 2e in Kato clearly do not extend in the lengthwise direction of the contact surface.

Furthermore, from the Kato figures, it is impossible to tell whether the front portion of the contact surface forms an obtuse angle with a front surface of the push block. Moreover, there is no support in the text of Kato to support such a contention. In addition, as shown below, if a plurality of blocks are arranged along the travel direction and are brought into close contact with each other, oil will not efficiently drain from the adjacent push blocks, shown below. In contrast, the claimed ridge line is oriented perpendicular to the travel direction of the push block, which enables oil to drain even when adjacent push blocks are in close contact. This is a substantial improvement over Kato.

Claimed blocks
→ travel direction

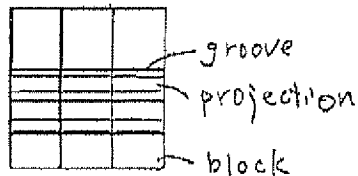
ridge line located at a middle of the block



Oil may leak from a gap between ridge lines.

Kato's blocks

→ travel direction



Oil may not leak from between adjacent blocks due to close contact of adjacent blocks.

For at least the above reasons, Kato fails to disclose each and every element of claim 15. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 15.

Claims 16-19

Claims 16-19 depend either directly or indirectly from claim 15; consequently, each of these claims includes all of the recitations of claim 15. 35 U.S.C. § 112, ¶4. Because claim 15 is distinguishable over the applied art, claims 16-19 are necessarily distinguishable over the applied art for at least the reasons set forth in connection with claim 15 above.

Conclusion

In light of the foregoing, it is respectfully submitted that the objections and rejections set forth in the Office Action have been overcome. Accordingly, Applicant respectfully requests reconsideration of the application in light of the above amendments and remarks, removal of the claim objections, withdrawal of the rejections under 35 U.S.C. § 102, allowance of the pending claims, and prompt issuance of a Notice of Allowance. If any issues remain outstanding after consideration of this Amendment, Applicants invite the Examiner to call the undersigned (561-847-7808) if it is believed that a telephone interview would expedite the prosecution of the application to an allowance.

Respectfully submitted,

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